

Sewall Wetland Consulting, Inc.

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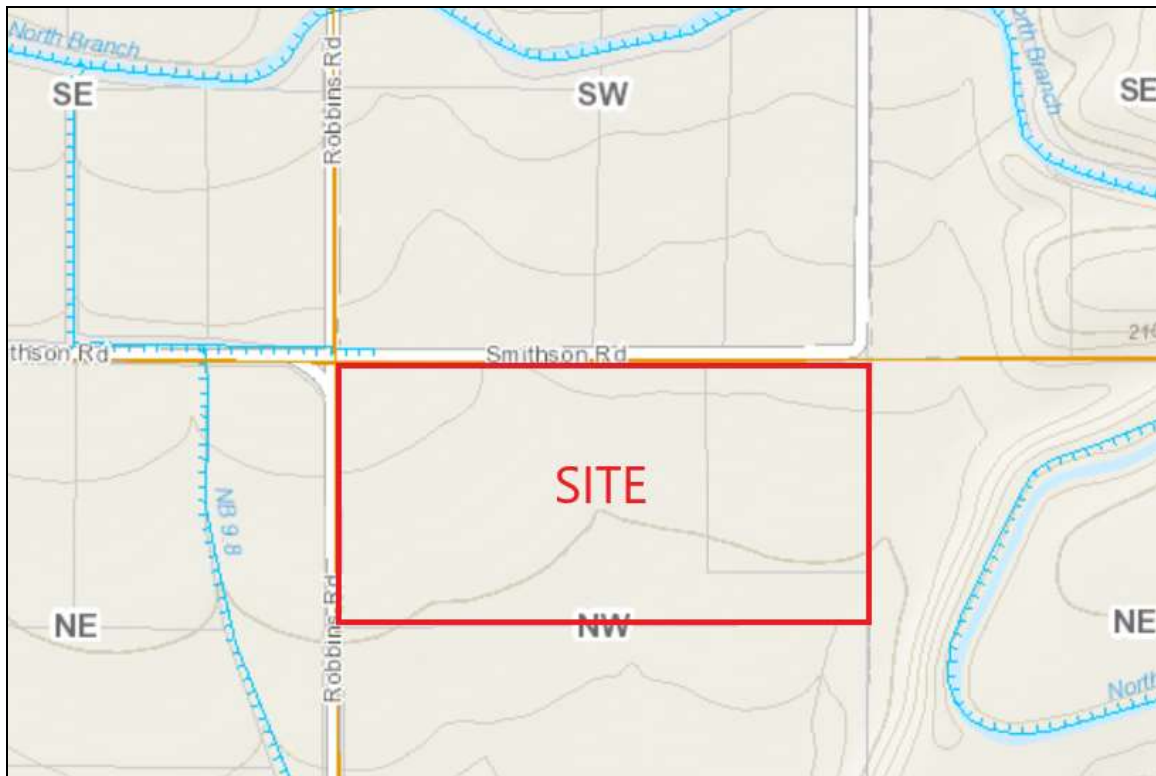
March 22, 2022

Mike & Debbie Stanavich
8400 Smithson Road
Ellensburg, Washington 98926

RE: Critical Area Report – Stanavich Agricultural Plat
Parcels #14217 & 10729
Kittitas County, Washington
SWC Job #22-114

Dear Mike & Debbie,

This report describes our observations of any jurisdictional wetlands, streams and/or buffers on or within 200' of Parcels #14217 & 10729, located at 8400 Smithson Road, in unincorporated Kittitas County, Washington.



Above: Vicinity Map of site

These two abutting parcels are located within the NW ¼ of Section 35 Township 19 North, Range 18 East of the W.M in Kittitas County, Washington. Specifically, the rectangular 81 acre agricultural site includes a single family home, shop, septic system, and associated landscaping and gravel driveway/parking surfaces.



Above: Aerial photograph of the study area from Kittitas Mapsifter website.

Proposed Project

The proposed project is the division of the property as an Agricultural Plat, with 5 separate parcels. Parcel A (40 acres) on the western half of the site will remain in agriculture. Parcels B & C are two 3 acre parcels along the central side of the site for single family homes. Parcel D is a 19.6 acre parcel to contain the existing home and shop. Parcel E is a 15.38 acre parcel on the east for a single family home. Since the western half of the site is to remain in agriculture, the focus of the study was on the areas of Parcels B, C and E where a future single family home could be placed.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site and areas within 200' of the site on April 22 and March 2, 2022.

The site was reviewed using methodology described in the ***Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*** (USACOE September 2008) as required by the US Army Corps of Engineers starting in June of 2009. This is the methodology currently recognized by the City of Ellensburg for wetland determinations and delineations. The site was also reviewed using methodology described in Soil colors were identified using the 1990 Edited and Revised Edition of the ***Munsell Soil Color Charts*** (Kollmorgen Instruments Corp. 1990).

Wetlands in Kittitas County are rated using the 2014 Washington State Department of Ecology Washington State *Wetland Rating System for Eastern Washington, 2014 Update* dated June 2014 Publication No. 14-06-018.

The ordinary high water mark (OHWM) of any streams was located based upon the criteria described in the *Washington Department of Ecology draft publication Determining The Ordinary High Water Mark on Streams In Washington State* (WADOE Publication 08-06-001, March 2008).

OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the Kittitas Taxsifter website, National Wetland Inventory Map, WDNR Fpars Stream Typing Map, Kittitas County flood & critical areas mapping, WDFW Priority Habitats and Species Maps, and the NRCS Soil Survey online mapping and Data.

Kittitas Taxsifter Website

The Kittitas Taxsifter website with streams and wetland layers activated depicts a Type F stream (Currier Creek) along the southeast corner of the site, as well as a second un-named tributary passing through the center of the site, also a Type F water. The eastern half of the site is erroneously depicted as a large emergent wetland.



Above: Aerial photograph of the study area from Kittitas Mapsifter website with wetland and DNR water type layers activated.

National Wetlands Inventory (NWI)

The NWI map depicts the same wetlands and streams as the Kittitas County website. Several of the irrigation ditches on the site are incorrectly mapped as streams. The Kittitas Taxsifter mapping was taken from these NWI maps. These wetlands were interpreted from aerial photographs by the US Fish and Wildlife Service using 2017 aerial photographs with no ground-truthing.



Above: NWI map of the area of the site

Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as containing several well-drained and moderately well drained soil series including Metmill very gravelly ashy loam (Map unit #844), Reeser-Reelow-Sketter complex (Map unit #843), Varodale clay (Map unit #585) and Pacheun ashy loam (Map unit #554). None of these soils are considered "hydric" or wetland soils according to the publication Hydric Soils of the United States (USDA NTCHS Pub No.1491, 1991).



Above: NRCS soil map of the site.

WADNR FPARS website

According to the WADNR FPARS website with stream types layers activated, the main irrigation ditch on the north side of the site is mapped as an “unclassified stream”, Currier Creek on the southeast corner is mapped as a Type F stream, and the un-named tributary across the center of the site is also depicted as a Type F stream.



Above: WDNR Fpars Stream Mapping of the area of the site.

WDFW Priority Habitats and Species Maps

The WDFW Priority Habitats and Species mapping for the site depicts the same streams and wetlands identified on the NWI and WDNR Fpars mapping.



Above : WDFW Priority Habitat Mapping of the site. Purple shading represents wetlands on this map and red streams/ditches.

Field observations

As previously described, the site is a large agricultural property currently used to grow timothy hay on the west, and graze livestock on the east. A single family home and shop are located on the north part of the eastern half of the site. This includes a gravel driveway, large gravel parking surfaces, as well as associated landscaped areas, and septic system. A man-made agricultural pond is located east of the driveway near the north end of the site. Water from the irrigation ditch north of the pond is a source of water for the pond. The site has a gentle slope to the south and is bordered by Smithson Road on the north and Robbins Road on the west. Agricultural properties abut the east and southern sides of the site.

The western half of the site used to grow timothy hay is irrigated with a wheel irrigation system. The eastern half receives water from the KRD canal in a main irrigation ditch that crosses the north side of the site and has several turnouts/side ditches. There are also several irrigation turnouts from Currier Creek on the eastern side of the site that direct water westerly to water the southern side of the site. These have all been used to maintain forage grasses for livestock when they are used for grazing.

Currently, only the western side of the site with wheel irrigation is actively irrigated. The eastern irrigation channels with the exception of the main irrigation canal on the north side of the site are not currently active and flow has been blocked off to these areas to ascertain wetland hydrologic conditions which are natural, from those which are just irrigation induced.

Uplands

The majority of the site on the east is vegetated with scattered hawthorne and rose with a mix of pasture grasses including tall fescue, timothy, quackgrass, and in areas that receive irrigation water, some sedge and Baltic rush. The area along the eastern side of the site bordering Currier Creek contains scattered willows (both coyote willow and crack willow), alder, hawthorne and some reed canary grass.

The soils throughout the agricultural fields were found to be a dry, cobbly ashy loam or gravelly loam with soil chromes of 2 or 3. Redoximorphic features were present in areas that historically received irrigation water. However, this irrigation has ceased to flow to these areas and as a result, these soils remain dry all year. This dry upland area includes most of the area depicted as wetland on the eastern side of the site in the various inventories. As is typical for this portion of Kittitas County, the NWI, Kittitas County and WDFW Priority habitat maps depict much irrigated agricultural lands erroneously as wetlands.

Critical Areas

A single wetland was found on the south side of the site, in addition to Currier Creek along the southeast side of the site and the un-named tributary on the center of the site (*see Map page 13 of this report*). Below is a description of these critical areas;

Wetlands

Wetland A

Wetland A is located on the southeast side of the site where it appears a naturally high, surficial groundwater is shallow enough in the upper part of the soil profile to create wetland conditions, This includes a large area of emergent wetland, and on the south, a small patch of forested wetland just off-site to the south. Historically irrigation water from Currier Creek also contributed to this area, but has since been cutoff by blockage of the irrigation turnouts. Water in this wetland seeps to the south off-site where it is collected in an irrigation ditch that appears to form the south end of the wetland.

The north end of this wetland on the site was flagged with orange wire flags labeled A1-A12 (*gps points 383-395*).

The wetland is a depressional wetland and is dominated by sedge with some Baltic rush. The forested portion of the wetland consists of a large clump of crack willow with some coyote willow and sedge underneath the overstory.

Soil pits excavated within this wetland area revealed a loam with a B-horizon soil color of 10YR 2/1 with common, medium, distinct,

redoximorphic concentrations. Soils saturated at the surface during our wet season observation of the wetland.

Using the 2014 Washington State Department of Ecology Washington State *Wetland Rating System for Eastern Washington, 2014 Update* dated June 2014 Publication No. 14-06-018, and rating this wetland as a “depressional” wetland, this wetland scored a total of 17 points with 5 for habitat. This indicates a Category III wetland. According to Kittitas County Municipal Code Table 17A.070.030, Category III wetlands with a moderate land use activity have a 110’ buffer measured from the wetland edge.

Table 17A.07.030: Standard Buffer Widths

| Category of Wetland | Land Use with Low Impact ¹ | Land Use with Moderate Impact ² | Land Use with High Impact ³ |
|---------------------|---------------------------------------|--|--|
| I | 125 ft | 190 ft | 250 ft |
| II | 100 ft | 150 ft | 200 ft |
| III | 75 ft | 110 ft | 150 ft |
| IV | 25 ft | 40 ft | 50 ft |

Streams

Currier Creek

As previously stated, Currier Creek passes along the southeast side of the site. The ordinary high water mark of the creek on the west side, towards the site, was flagged with blue flags labeled W1-W8 (*gps points 375-382*).

The stream is topographically well defined with a bank which is generally 3’-5’ in elevation above the streambank. The bank is heavily vegetated with rose, coyote willow and hawthorn. The stream itself is 6’-8’ in width with a cobble and gravel bottom.

Currier Creek is a known fish bearing water which would be classified as a Type F stream.

According to KCMC 17A.04.030.4, Type F streams have a 100’ buffer measured from the ordinary high water mark in the Columbia Plateau region.

| Stream Type | Riparian Management Zone Widths ^{1,2} | |
|--------------------|--|-----------------------------------|
| | Cascade Ecoregion (feet) | Columbia Plateau Ecoregion (feet) |
| Type S (Shoreline) | See the SMP | See the SMP |
| Type F | 150 | 100 |
| Type Np | 100 | 65 |
| Type Ns | 50 | 40 |

Un-named Tributary

The mapped un-named tributary depicted as a Type F stream across the center of the site is a highly manipulated drainage with questionable flow. Flow on the site was not observed and it appears most if not all of the flow is diverted into irrigation turnouts. Portions of the channel were noted to have evidence of flow (flattened direction grasses) from the recent snowmelt that had occurred several weeks prior to our site visit, but the stream was dry during our site visit and it is known how much if any flow this channel really has. There is a channel that is discernable, but much of it is grown over with weedy species like cheatgrass etc. and doesn’t appear to have regular flow.

We delineated the centerline of this channel, which is generally about 18” wide with gps points 396-433.

The stream is questionable to whether flow is regular enough to be considered a stream, however, clearly fish use is not present in this channel.


As a result, this channel appears to best meet the criteria of a Type Ns water due to potential ephemeral flow, and a mean channel width of 18”

(less than the 3' channel width standard used as an assumption of fish use).

According to KCMC 17A.04.030.4, Type Ns streams have a 40' buffer measured from the ordinary high water mark in the Columbia Plateau region.

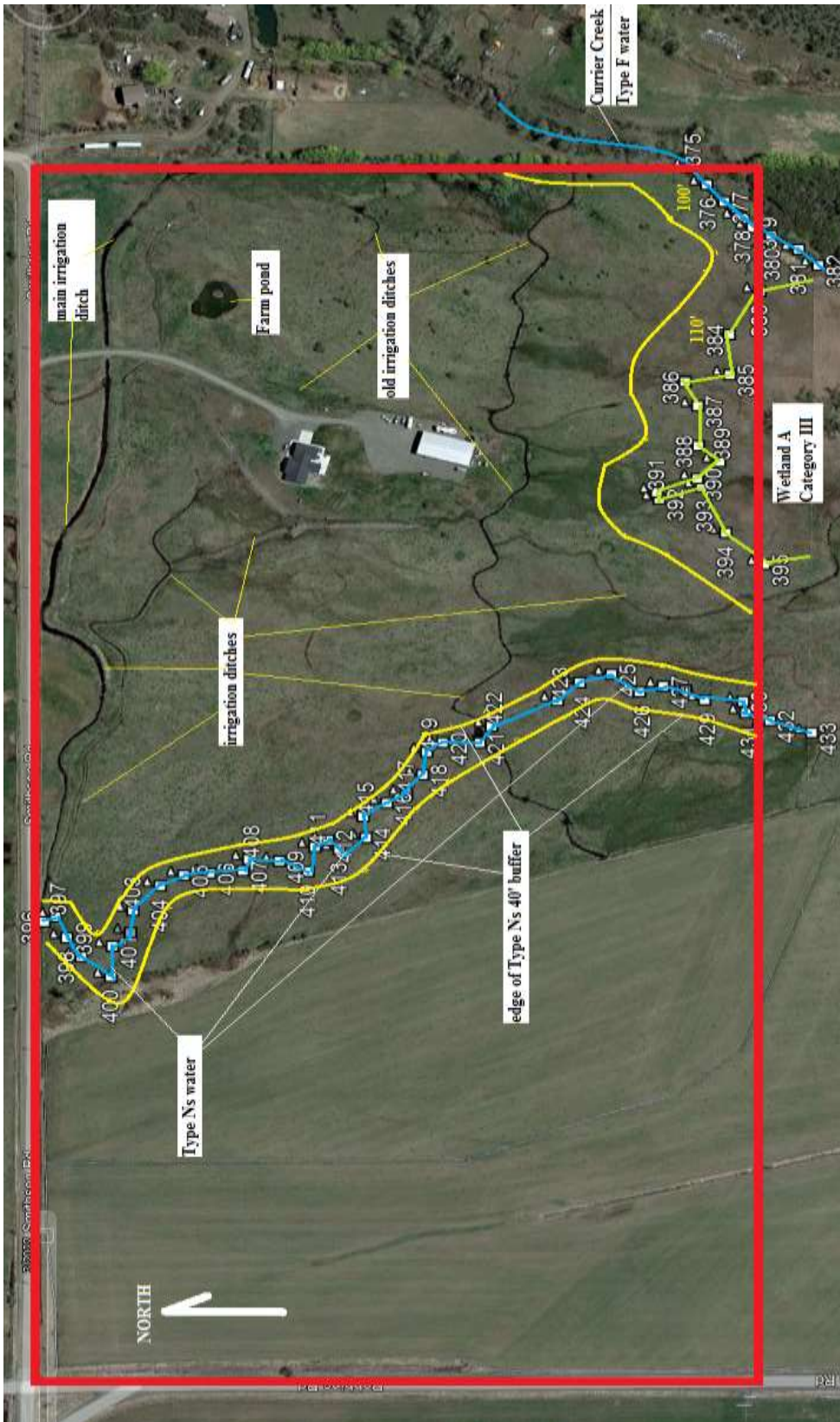
If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com .

Sincerely,
Sewall Wetland Consulting, Inc.

A handwritten signature in black ink on a light yellow background, appearing to read "Ed Sewall".

Ed Sewall
Senior Wetlands Ecologist PWS #212

Attached: Data sheets & Rating Forms



REFERENCES

Cowardin, L., V. Carter, F. Golet, and E. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79-31, Washington, D. C.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U. S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.

Kittitas County Municipal Code

Muller-Dombois, D. and H. Ellenberg. 1974. Aims and Methods of Vegetation Ecology. John Wiley & Sons, Inc. New York, New York.

Munsell Color. 1988. Munsell Soil Color Charts. Kollmorgen Instruments Corp., Baltimore, Maryland.

National Technical Committee for Hydric Soils. 1991. Hydric Soils of the United States. USDA Misc. Publ. No. 1491.

Reed, P., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9). 1988. U. S. Fish and Wildlife Service, Inland Freshwater Ecology Section, St. Petersburg, Florida.

Reed, P.B. Jr. 1993. 1993 Supplement to the list of plant species that occur in wetlands: Northwest (Region 9). USFWS supplement to Biol. Rpt. 88(26.9) May 1988.

USDA NRCS & National Technical Committee for Hydric Soils, September 1995. Field Indicators of Hydric Soils in the United States - Version 2.1

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stanswick City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WA Sampling Point: DP#1
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | |
|---------------------------------|---|---|
| Hydrophytic Vegetation Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: | | |

VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) |
| 4. _____ | | | | |
| Sapling/Shrub Stratum (Plot size: _____) _____ = Total Cover | | | | Prevalence Index worksheet: |
| 1. _____ | | | | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | | | | OBL species _____ x 1 = _____ |
| 3. _____ | | | | FACW species _____ x 2 = _____ |
| 4. _____ | | | | FAC species _____ x 3 = _____ |
| 5. _____ | | | | FACU species _____ x 4 = _____ |
| _____ = Total Cover | | | | UPL species _____ x 5 = _____ |
| | | | | Column Totals: _____ (A) _____ (B) |
| Herb Stratum (Plot size: _____) | | | | Prevalence Index = B/A = _____ |
| 1. <u>Bromus tectorum</u> | <u>80</u> | | <u>Upl</u> | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| _____ = Total Cover | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. _____ | | | | |
| 2. _____ | | | | |
| _____ = Total Cover | | | | |
| % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____ | | | | |
| Remarks: | | | | |

SOIL

Sampling Point: _____

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) | | | | | |
|--|--------------------------|-----------------------------------|--|--|----------------------------|
| Depth (Inches) | Matrix | | Redox Features | | |
| | Color (moist) | % | Color (moist) | % | Type ¹ |
| <u>16</u> | <u>7.5YR</u> | <u>2.5/2</u> | | | |
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| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. | | | | | |
| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | | | Indicators for Problematic Hydric Soils ³ : | | |
| | <input type="checkbox"/> | Histic Epipedon (A2) | | <input type="checkbox"/> | Sandy Redox (S6) |
| | <input type="checkbox"/> | Black Histic (A3) | | <input type="checkbox"/> | Stripped Matrix (S6) |
| | <input type="checkbox"/> | Hydrogen Sulphide (A4) | | <input type="checkbox"/> | Loamy Mucky Mineral (F1) |
| | <input type="checkbox"/> | Stratified Layers (A5) (LRR C) | | <input type="checkbox"/> | Loamy Gleyed Matrix (F2) |
| | <input type="checkbox"/> | 1 cm Muck (A6) (LRR D) | | <input type="checkbox"/> | Depleted Matrix (F3) |
| | <input type="checkbox"/> | Depleted Below Dark Surface (A11) | | <input type="checkbox"/> | Redox Dark Surface (F6) |
| | <input type="checkbox"/> | Thick Dark Surface (A12) | | <input type="checkbox"/> | Depleted Dark Surface (F7) |
| | <input type="checkbox"/> | Sandy Mucky Mineral (S1) | | <input type="checkbox"/> | Redox Depressions (F8) |
| | <input type="checkbox"/> | Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> | Vernal Pools (F9) |
| | <input type="checkbox"/> | | | <input type="checkbox"/> | Other (Explain in Remarks) |
| ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. | | | | | |
| Restrictive Layer (if present): | | | | | |
| Type: _____ | | | | | |
| Depth (Inches): _____ | | | | | |
| | | | | Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: | | | | | |

HYDROLOGY

| Wetland Hydrology Indicators: | |
|--|--|
| Primary Indicators (minimum of one required, check all that apply) | Secondary Indicators (2 or more required) |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulphide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) |
| | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| | <input type="checkbox"/> Drainage Patterns (B10) |
| | <input type="checkbox"/> Dry-Season Water Table (C2) |
| | <input type="checkbox"/> Crayfish Burrows (C8) |
| | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| | <input type="checkbox"/> Shallow Aquitard (D3) |
| | <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: | |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (Inches): _____ |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (Inches): _____ |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (Inches): _____ |
| Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: | |

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Stamovich City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WA Sampling Point: DP#2
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hilllope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Let: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|--|--|---|--|
| Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | Hydroic Soil Present? Yes _____ No <input checked="" type="checkbox"/> | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Remarks: _____ | | | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) |
| 4. _____ | | | | |
| _____ = Total Cover | | | | Prevalence Index worksheet: |
| Total % Cover of: | | | | Multiply by: |
| OBL species _____ x 1 = _____ | | | | |
| FACW species _____ x 2 = _____ | | | | |
| FAC species _____ x 3 = _____ | | | | |
| FACU species _____ x 4 = _____ | | | | |
| UPL species _____ x 5 = _____ | | | | |
| Column Totals: _____ (A) _____ (B) | | | | |
| Prevalence Index = B/A = _____ | | | | |
| Hydrophytic Vegetation Indicators: | | | | |
| ___ Dominance Test is >50% | | | | |
| ___ Prevalence Index is $\leq 3.0^1$ | | | | |
| ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | | |
| ___ Problematic Hydrophytic Vegetation ¹ (Explain) | | | | |
| ¹ Indicators of hydroic soil and wetland hydrology must be present, unless disturbed or problematic. | | | | |
| Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | | | | |
| Remarks: _____ | | | | |

| Sapling/Shrub Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|--|------------------|-------------------|------------------|
| 1. _____ | | | |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. _____ | | | |
| _____ = Total Cover | | | |

| Herb Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------|------------------|-------------------|------------------|
| 1. <u>Bromus</u> | <u>60</u> | <u>UP</u> | <u>L</u> |
| 2. <u>Tigweed</u> | <u>10</u> | <u>NE</u> | <u>F</u> |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. _____ | | | |
| 6. _____ | | | |
| 7. _____ | | | |
| 8. _____ | | | |
| _____ = Total Cover | | | |

| Woody Vine Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|------------------|-------------------|------------------|
| 1. _____ | | | |
| 2. _____ | | | |
| _____ = Total Cover | | | |

| % Bare Ground in Herb Stratum _____ | % Cover of Biotic Crust _____ |
|-------------------------------------|-------------------------------|
| Remarks: _____ | |

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | Type | Loc ² | Texture | Remarks |
|----------------|-----------------|---|----------------|---|------|------------------|-------------|---------|
| | Color (moist) | % | Color (moist) | % | | | | |
| <u>16</u> | <u>10yR 2/2</u> | | | | | | <u>loam</u> | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydroic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydroic Soils³:

| | | |
|---------------------------------------|--------------------------------|--------------------------------|
| ___ Histosol (A1) | ___ Sandy Redox (S5) | ___ 1 cm Muck (A9) (LRR C) |
| ___ Histic Epipedon (A2) | ___ Stripped Matrix (S6) | ___ 2 cm Muck (A10) (LRR B) |
| ___ Black Histic (A3) | ___ Loamy Mucky Mineral (F1) | ___ Reduced Vertic (F18) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Gleyed Matrix (F2) | ___ Red Parent Material (TF2) |
| ___ Stratified Layers (A5) (LRR C) | ___ Depleted Matrix (F3) | ___ Other (Explain in Remarks) |
| ___ 1 cm Muck (A9) (LRR D) | ___ Redox Dark Surface (F6) | |
| ___ Depleted Below Dark Surface (A11) | ___ Depleted Dark Surface (F7) | |
| ___ Thick Dark Surface (A12) | ___ Redox Depressions (F8) | |
| ___ Sandy Mucky Mineral (S1) | ___ Vernal Pools (F9) | |
| ___ Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____
 Hydroic Soil Present? Yes _____ No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
|--|---|
| ___ Surface Water (A1) | ___ Salt Crust (B11) |
| ___ High Water Table (A2) | ___ Biotic Crust (B12) |
| ___ Saturation (A3) | ___ Aquatic Invertebrates (B13) |
| ___ Water Marks (B1) (Nonriverine) | ___ Hydrogen Sulfide Odor (C1) |
| ___ Sediment Deposits (B2) (Nonriverine) | ___ Oxidized Rhizospheres along Living Roots (C3) |
| ___ Drift Deposits (B3) (Nonriverine) | ___ Presence of Reduced Iron (C4) |
| ___ Surface Soil Cracks (B6) | ___ Recent Iron Reduction in Tilled Soils (C6) |
| ___ Inundation Visible on Aerial Imagery (B7) | ___ Thin Muck Surface (C7) |
| ___ Water-Stained Leaves (B9) | ___ Other (Explain in Remarks) |
| ___ Water Marks (B1) (Riverine) | ___ Water Marks (B1) (Riverine) |
| ___ Sediment Deposits (B2) (Riverine) | ___ Sediment Deposits (B2) (Riverine) |
| ___ Drift Deposits (B3) (Riverine) | ___ Drift Deposits (B3) (Riverine) |
| ___ Drainage Patterns (B10) | ___ Drainage Patterns (B10) |
| ___ Dry-Season Water Table (C2) | ___ Dry-Season Water Table (C2) |
| ___ Crayfish Burrows (C8) | ___ Crayfish Burrows (C8) |
| ___ Saturation Visible on Aerial Imagery (C9) | ___ Saturation Visible on Aerial Imagery (C9) |
| ___ Shallow Aquitard (D3) | ___ Shallow Aquitard (D3) |
| ___ FAC-Neutral Test (D5) | ___ FAC-Neutral Test (D5) |

Field Observations:

| | | |
|---|-----------------------|---|
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> |
| Water Table Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | |
| Saturation Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Staravich City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WA Sampling Point: DP#3
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hilllope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | |
|--|--|--|
| Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | Hydroic Soil Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | Remarks: _____ | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) |
| 4. _____ | | | | |
| = Total Cover | | | | Prevalence Index worksheet: |
| Total % Cover of: _____ Multiply by: | | | | |
| OBL species _____ x 1 = _____ | | | | |
| FACW species _____ x 2 = _____ | | | | |
| FACU species _____ x 4 = _____ | | | | |
| UPL species _____ x 5 = _____ | | | | |
| Column Totals: (A) _____ (B) _____ | | | | |
| Prevalence Index = B/A = _____ | | | | |
| Hydrophytic Vegetation Indicators: | | | | |
| Dominance Test is >50% _____ | | | | |
| Prevalence Index is <=3.0 ¹ _____ | | | | |
| Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ | | | | |
| Problematic Hydrophytic Vegetation ¹ (Explain) _____ | | | | |
| ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | |
| Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | | | | |
| Remarks: _____ | | | | |

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type | Loc | Tature | Remarks |
|----------------|----------------------|---|------------------------------|---|------|-----|------------|---------|
| 8 | 10YR2/2 | | | | | | | |
| 14 | 7.5YR2.5/1 | | | | | | Chobby / w | |

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix

| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | Indicators for Problematic Hydric Soil ¹ : |
|---|---|
| ___ Histosol (A1) | ___ Sandy Redox (S6) |
| ___ Histic Epipedon (A2) | ___ Stripped Matrix (S6) |
| ___ Black Histic (A3) | ___ Loamy Mucky Mineral (F1) |
| ___ Hydrogen Sulfide (A4) | ___ Loamy Gleyed Matrix (F2) |
| ___ Stratified Layers (A5) (LRR C) | ___ Depleted Matrix (F3) |
| ___ 1 cm Muck (A8) (LRR D) | ___ Redox Dark Surface (F6) |
| ___ Depleted Below Dark Surface (A11) | ___ Depleted Dark Surface (F7) |
| ___ Thick Dark Surface (A12) | ___ Redox Depressions (F8) |
| ___ Sandy Mucky Mineral (S1) | ___ Vernal Pools (F9) |
| ___ Sandy Gleyed Matrix (S4) | |

¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (Inches): _____
 Hydric Soil Present? Yes _____ No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
|--|---|
| ___ Surface Water (A1) | ___ Salt Crust (B11) |
| ___ High Water Table (A2) | ___ Biotic Crust (B12) |
| ___ Saturation (A3) | ___ Aquatic Invertebrates (B13) |
| ___ Water Marks (B1) (Nonriverine) | ___ Hydrogen Sulfide Odor (C1) |
| ___ Sediment Deposits (B2) (Nearriverine) | ___ Oxidized Rhizospheres along Living Roots (C3) |
| ___ Drift Deposits (B3) (Nonriverine) | ___ Presence of Reduced Iron (C4) |
| ___ Surface Soil Cracks (B6) | ___ Recent Iron Reduction in Filled Soils (C6) |
| ___ Inundation Visible on Aerial Imagery (B7) | ___ Thin Muck Surface (C7) |
| ___ Water-Stained Leaves (B9) | ___ Other (Explain in Remarks) |
| | ___ Water Marks (B1) (Riverine) |
| | ___ Sediment Deposits (B2) (Riverine) |
| | ___ Drift Deposits (B3) (Riverine) |
| | ___ Drainage Patterns (B10) |
| | ___ Dry-Season Water Table (C2) |
| | ___ Crayfish Burrows (C8) |
| | ___ Saturation Visible on Aerial Imagery (C9) |
| | ___ Shallow Aquitard (D3) |
| | ___ FAC-Neutral Test (D5) |

Field Observations:
 Surface Water Present? Yes _____ No Depth (Inches): _____
 Water Table Present? Yes _____ No Depth (Inches): _____
 Saturation Present? Yes _____ No Depth (Inches): _____
 (Include capillary fringe)
 Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stanavich City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WA Sampling Point: DP#4
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation, Soil, or Hydrology significantly disturbed? Yes No Are "Normal Circumstances" present? Yes No
 Are Vegetation, Soil, or Hydrology naturally problematic? Yes No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: | |

VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------|--|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) |
| 4. _____ | | | | |
| Sapling/Shrub Stratum (Plot size: _____) = Total Cover | | | | Prevalence Index worksheet: |
| 1. _____ | | | | Total % Cover of: _____ Multiply by: _____ |
| 2. _____ | | | | OBL species _____ x 1 = _____ |
| 3. _____ | | | | FACW species _____ x 2 = _____ |
| 4. _____ | | | | FAC species _____ x 3 = _____ |
| 5. _____ | | | | FACU species _____ x 4 = _____ |
| Herb Stratum (Plot size: _____) = Total Cover | | | | UPL species _____ x 5 = _____ |
| 1. <u><i>Sisymbrium officinalis</i></u> | <u>20</u> | | <u>NI</u> | Column Totals: (A) _____ (B) _____ |
| 2. <u><i>Berula erecta</i></u> | <u>40</u> | | <u>NPL</u> | Prevalence Index = B/A = _____ |
| 3. _____ | | | | Hydrophytic Vegetation Indicators: |
| 4. _____ | | | | Dominance Test is >50% |
| 5. _____ | | | | Prevalence Index is ≤3.0 ¹ |
| 6. _____ | | | | Morphological Adaptations ² (Provide supporting data in Remarks or on a separate sheet) |
| 7. _____ | | | | Problematic Hydrophytic Vegetation ³ (Explain) |
| 8. _____ | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| Woody Vine Stratum (Plot size: _____) = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| 1. _____ | | | | |
| 2. _____ | | | | |
| % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____ | | | | |
| Remarks: | | | | |

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (Inches) | Matrix | | Redox Features | | | Loc ² | Texture | Remarks |
|----------------|---------------|---|----------------|---|-------------------|------------------|-------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | | | |
| 16 | 10YR3/3 | | | | | | coarse sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

| | | |
|--|---|---|
| <input type="checkbox"/> Histic (A1) | <input type="checkbox"/> Sandy Redox (B5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S8) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Rod Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (Inches): _____
 Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nearriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) |
| | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | | |
|--|-----------------------|--|
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (Inches): _____ | Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (Inches): _____ | |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (Inches): _____ | |

(Includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Arid West Region

Project/Site: Stannah City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WA Sampling Point: DPHS
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: _____ | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|-------------------------------|-------------------|------------------|--|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1.0</u> (A/B) |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: (A) _____ (B) _____ Prevalence Index = B/A = _____ |
| Sapling/Shrub Stratum (Plot size: _____) | | | | |
| 1. _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| Herb Stratum (Plot size: _____) | | | | |
| 1. <u>Festuca arvensis</u> | <u>50</u> | <u>FAC</u> | | |
| 2. <u>Desmodium illinoense</u> | <u>50</u> | <u>FAC</u> | | |
| 3. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| % Bare Ground in Herb Stratum _____ | % Cover of Biotic Crust _____ | | | |
| Remarks: _____ | | | | |
| Hydrophytic Vegetation Indicators: Dominance Test is >50% _____ Prevalence Index is ≥3.0 ¹ _____ Morphological Adaptations ² (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | |
| Hydrophytic Vegetation Present? Yes _____ No _____ | | | | |

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | Type | Loc ² | Texture | Remarks |
|----------------|-----------------|---|----------------|---|------|------------------|-------------|---------|
| | Color (moist) | % | Color (moist) | % | | | | |
| <u>16</u> | <u>10YR 3/2</u> | | | | | | <u>clay</u> | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

| | | |
|--|--|--|
| <ul style="list-style-type: none"> ___ Histosol (A1) ___ Histic Epipedon (A2) ___ Black Histic (A3) ___ Hydrogen Sulfide (A4) ___ Stratified Layers (A5) (LRR C) ___ 1 cm Muck (A8) (LRR D) ___ Depleted Below Dark Surface (A11) ___ Thick Dark Surface (A12) ___ Sandy Mucky Mineral (S1) ___ Sandy Gleyed Matrix (S4) | <ul style="list-style-type: none"> ___ Sandy Redox (B5) ___ Stripped Matrix (B6) ___ Loamy Mucky Mineral (F1) ___ Loamy Gleyed Matrix (F2) ___ Depleted Matrix (F3) ___ Redox Dark Surface (F6) ___ Depleted Dark Surface (F7) ___ Redox Depressions (F8) ___ Vernal Pools (F9) | <ul style="list-style-type: none"> ___ 1 cm Muck (A9) (LRR C) ___ 2 cm Muck (A10) (LRR B) ___ Reduced Vertic (F18) ___ Rod Parent Material (TF2) ___ Other (Explain in Remarks) |
|--|--|--|

¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____
 Hydric Soil Present? Yes _____ No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
|---|---|
| <ul style="list-style-type: none"> ___ Surface Water (A1) ___ High Water Table (A2) ___ Saturation (A3) ___ Water Marks (B1) (Nonriverine) ___ Sediment Deposits (B2) (Nonriverine) ___ Drift Deposits (B3) (Nonriverine) ___ Surface Soil Cracks (B8) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) | <ul style="list-style-type: none"> ___ Salt Crust (B11) ___ Biotic Crust (B12) ___ Aquatic Invertebrates (B13) ___ Hydrogen Sulfide Odor (C1) ___ Oxidized Rhizospheres along Living Roots (C3) ___ Presence of Reduced Iron (C4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Thin Muck Surface (C7) ___ Other (Explain in Remarks) |

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (Includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Staravich City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WA Sampling Point: DP#6
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hilllope, terrace, etc.): _____ Local relief (conceive, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No _____ | |
| Wetland Hydrology Present? Yes _____ No _____ | |
| Remarks: | |

VEGETATION - Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| _____ = Total Cover | | | | |
| Prevalence Index worksheet: | | | | |
| Total % Cover of: _____ Multiply by: _____ | | | | |
| OBL species | x 1 = | | | |
| FACW species | x 2 = | | | |
| FAC species | x 3 = | | | |
| FACU species | x 4 = | | | |
| UPL species | x 5 = | | | |
| Column Totals: (A) _____ (B) _____ | | | | |
| Prevalence Index = B/A = _____ | | | | |
| Hydrophytic Vegetation Indicators: | | | | |
| Dominance Test is >50% <input checked="" type="checkbox"/> | | | | |
| Prevalence Index is ≤3.0 <input checked="" type="checkbox"/> | | | | |
| Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> | | | | |
| Problematic Hydrophytic Vegetation ¹ (Explain) _____ | | | | |
| ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | |
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | | |
| Remarks: | | | | |

| Shrub/Strawb Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|------------------|-------------------|------------------|
| 1. _____ | | | |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. _____ | | | |
| _____ = Total Cover | | | |

| Herb Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------|------------------|-------------------|------------------|
| 1. <u>Festuca ovina</u> | <u>40</u> | <u>FAC</u> | |
| 2. <u>Carex spp</u> | <u>20</u> | <u>FAC</u> | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. _____ | | | |
| _____ = Total Cover | | | |

| Woody Vine Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|------------------|-------------------|------------------|
| 1. _____ | | | |
| 2. _____ | | | |
| _____ = Total Cover | | | |

| | |
|-------------------------------------|-------------------------------|
| % Bare Ground in Herb Stratum _____ | % Cover of Biotic Crust _____ |
| Remarks: | |

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

| Depth (inches) | Matrix | | Redox Features | | Type | Loc | Texture | Remarks |
|----------------|-----------------|---|----------------|---|------|-----|-------------------|---------|
| | Color (moist) | % | Color (moist) | % | | | | |
| <u>12</u> | <u>10YR 3/2</u> | | | | | | <u>Co bly / m</u> | |
| | | | | | | | | |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | Indicators for Problematic Hydric Soil ² : |
|--|---|
| <input type="checkbox"/> Histocel (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Sandy Redox (S6) <input type="checkbox"/> Stripped Matrix (S8) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F8) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9) |
| | <input type="checkbox"/> 1 cm Muck (A8) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) |
|---|--|
| <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Soaked Leaves (B9) | <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) |
| | <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | | |
|--|-----------------------|---|
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> |
| Water Table Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | |
| Saturation Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Staravich City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WZ Sampling Point: DP#7
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---------------------------------|--|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes _____ No <u>_____</u> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | | Yes _____ No <input checked="" type="checkbox"/> |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Remarks: | | | |

VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) |
|---|-------------------------------|----------------------|---------------------|--|
| 1. _____ | | | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| = Total Cover | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) |
| Sapling/Shrub Stratum (Plot size: _____) | | | | |
| 1. _____ | | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| = Total Cover | | | | |
| Herb Stratum (Plot size: _____) | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: (A) _____ (B) _____ Prevalence Index = B/A = _____ |
| 1. <u>Agropyron repens</u> <u>60</u> <u>FAC</u> | | | | |
| 2. <u>Festuca ovina</u> <u>40</u> <u>FAC</u> | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| = Total Cover | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. _____ | | | | |
| 2. _____ | | | | |
| = Total Cover | | | | |
| % Bare Ground in Herb Stratum _____ | % Cover of Biotic Crust _____ | | | |
| Remarks: | | | | |

SOIL

Sampling Point: _____

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) | | | | | | | |
|---|-------------------------|---|---------------------------------|---|-------------------|------------------|----------------------|
| Depth (Inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| <u>16</u> | <u>10YR 2/2</u> | | | | | | <u>Very cobby lo</u> |
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¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

| Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) | Indicators for Problematic Hydric Soils ³ : | |
|---|--|---|
| <input type="checkbox"/> Histic (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

| | | |
|---------------------------------|-----------------------|---|
| Restrictive Layer (if present): | | Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> |
| Type: _____ | Depth (Inches): _____ | |
| Remarks: | | |

HYDROLOGY

| Wetland Hydrology Indicators: | | |
|--|--|--|
| Primary Indicators (minimum of one required; check all that apply) | Secondary Indicators (2 or more required) | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Rivertine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Rivertine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Rivertine) |
| <input type="checkbox"/> Water Marks (B1) (Nonrivertine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonrivertine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonrivertine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> FAC-Neutral Test (D5) |

| | | | |
|---|-----------------------|--|---|
| Field Observations: | | | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (Inches): _____ | | |
| Water Table Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (Inches): _____ | | |
| Saturation Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (Inches): _____ | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | |
| Remarks: | | | |

WETLAND DETERMINATION DATA FORM -- Arid West Region

Project/Site: Stamwich City/County: Kittitas Sampling Date: 3-2-22
 Applicant/Owner: _____ State: WV Sampling Point: DP#8
 Investigator(s): Ed Sewall Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation, Soil, or Hydrology significantly disturbed? Yes No Are "Normal Circumstances" present? Yes No
 Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

| | | |
|---------------------------------|---|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: | | |

VEGETATION -- Use scientific names of plants.

| | | | |
|--|--|---|---|
| Tree Stratum (Plot size: _____) = Total Cover 1. _____ 2. _____ 3. _____ 4. _____ | Woody Vine Stratum (Plot size: _____) = Total Cover 1. _____ 2. _____ | Herb Stratum (Plot size: _____) = Total Cover 1. <u>Carex 30p</u> 40% <u>FR</u> 2. <u>Festuca ovina</u> 30% <u>FAI</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (AB) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species x 1 = _____ FACW species x 2 = _____ FAC species x 3 = _____ FACU species x 4 = _____ UPL species x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is <=3.0' Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Remarks: | | | |

SOIL

Sampling Point: _____

| | | | | | | | | | |
|---|----------------------|---|------------------------------|---|------|-----|------------|---------|--|
| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) | | | | | | | | | |
| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type | Loc | Texture | Remarks | |
| 16 | 10YR 2/2 | | | | | | very cobby | m | |
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| | | | | | | | | | |
| ¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: ___ Histic (A1) ___ Sandy Redox (S5) ___ 1 cm Muck (A9) (LRR C) ___ Histic Epipedon (A2) ___ Stripped Matrix (S6) ___ 2 cm Muck (A10) (LRR B) ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) ___ Reduced Vertic (F18) ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2) ___ Red Parent Material (TF2) ___ Stratified Layers (A5) (LRR C) ___ Depleted Matrix (F3) ___ Other (Explain in Remarks) ___ 1 cm Muck (A8) (LRR D) ___ Redox Dark Surface (F8) ___ Depleted Below Dark Surface (A11) ___ Depleted Dark Surface (F7) ___ Thick Dark Surface (A12) ___ Redox Depressions (FB) ___ Sandy Mucky Mineral (S1) ___ Vernal Pools (F9) ___ Sandy Gleyed Matrix (S4) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | |
| Restrictive Layer (if present): Type: _____ Depth (inches): _____ Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | | | | | | | |
| Remarks: | | | | | | | | | |

HYDROLOGY

| | | | | | | | | | | | |
|--|---|---------------------------------|------------------------------|--|--|---|--|------------------------------------|---------------------------------------|-----------------------------------|-----------------------------|
| Wetland Hydrology Indicators: | | | | | | | | | | | |
| Primary Indicators (minimum of one required; check all that apply) | | | | | Secondary Indicators (2 or more required) | | | | | | |
| ___ Surface Water (A1) | ___ Salt Crust (B11) | ___ Water Marks (B1) (Riverine) | ___ High Water Table (A2) | ___ Biotic Crust (B12) | ___ Sediment Deposits (B2) (Riverine) | ___ Saturation (A3) | ___ Aquatic Invertebrates (B13) | ___ Drift Deposits (B3) (Riverine) | ___ Water Marks (B1) (Nonriverine) | ___ Hydrogen Sulfide Odor (C1) | ___ Drainage Patterns (B10) |
| ___ Sediment Deposits (B2) (Nonriverine) | ___ Oxidized Rhizospheres along Living Roots (C3) | ___ Dry-Season Water Table (C2) | ___ Surface Soil Cracks (B6) | ___ Recent Iron Reduction in Tilled Soils (C6) | ___ Saturation Visible on Aerial Imagery (C8) | ___ Inundation Visible on Aerial Imagery (B7) | ___ Thin Muck Surface (C7) | ___ Shallow Aquitard (D3) | ___ Drift Deposits (B3) (Nonriverine) | ___ Presence of Reduced Iron (C4) | ___ Crayfish Burrows (CB) |
| ___ Water-Stained Leaves (B9) | ___ Other (Explain in Remarks) | ___ FAC-Neutral Test (D5) | ___ Field Observations: | Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ | Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ | Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | |

wet A

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Staravich City/County: Kittitas Sampling Date: 3-2-22
Applicant/Owner: Ed Sewall State: WA Sampling Point: DP#9
Investigator(s): Ed Sewall Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is the Sampled Area within a Wetland? Yes No
Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) Absolute Dominant Indicator % Cover Species? Status
1.
2.
3.
4.
= Total Cover
Shrub/Strub Stratum (Plot size:) Absolute Dominant Indicator % Cover Species? Status
1.
2.
3.
4.
5.
= Total Cover
Herb Stratum (Plot size:) Absolute Dominant Indicator % Cover Species? Status
1. Carex spp 80 Fall
2. Juncus benthicus 20 Fall
3.
4.
5.
6.
7.
8.
= Total Cover
Woody Vine Stratum (Plot size:) Absolute Dominant Indicator % Cover Species? Status
1.
2.
= Total Cover
% Bare Ground in Herb Stratum % Cover of Biotic Crust
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches) Matrix Color (moist) % Redox Features Color (moist) % Type Loc Texture Remarks
16 10YR 2/1 Cmol cobbly
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)
Thick Dark Surface (A12) Redox Depressions (F8)
Sandy Mucky Mineral (S1) Vernal Pools (F9)
Sandy Gleyed Matrix (S4)
Restrictive Layer (if present):
Type:
Depth (inches):
Hydric Soil Present? Yes No
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine)
High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine)
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Lot C

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Stanawich City/County: Kittitas Sampling Date: 3-2-22
Applicant/Owner: Ed Sewall State: WA Sampling Point: DP#10
Investigator(s): Ed Sewall Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Remarks:
Is the Sampled Area within a Wetland? Yes No

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:) Absolute % Cover Dominant Species? Status
1.
2.
3.
4.
= Total Cover
Shrub/Strawb Stratum (Plot size:)
1.
2.
3.
4.
5.
= Total Cover
Herb Stratum (Plot size:)
1. Festuca arvensis 40 FAC
2. Anemone 40 FAC
3.
4.
5.
6.
7.
8.
= Total Cover
Woody Vine Stratum (Plot size:)
1.
2.
= Total Cover
% Bare Ground in Herb Stratum % Cover of Biotic Crust
Remarks:
Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (AB)
Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species x 1 =
FACW species x 2 =
FAC species x 3 =
FACU species x 4 =
UPL species x 5 =
Column Totals: (A) (B)
Prevalence Index = B/A =
Hydrophytic Vegetation Indicators:
+ Dominance Test is >50%
Prevalence Index is <=3.0
Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation (Explain)
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth (inches) Matrix Color (moist) % Redox Features Color (moist) % Type Loc Texture Remarks
16 10M2/2 Cobble
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)
Histosol (A1) Sandy Redox (S6) 1 cm Muck (A9) (LRR C)
Hist Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)
Thick Dark Surface (A12) Redox Depressions (F8)
Sandy Mucky Mineral (B1) Vernal Pools (F9)
Sandy Gleyed Matrix (S4)
Indicators for Problematic Hydric Soils:
1 cm Muck (A9) (LRR C)
2 cm Muck (A10) (LRR B)
Reduced Vertic (F18)
Red Parent Material (TF2)
Other (Explain in Remarks)
Restrictive Layer (if present):
Type:
Depth (inches):
Hydric Soil Present? Yes No
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine)
High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine)
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (CB)
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C8)
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Wetland name or number A

RATING SUMMARY – Eastern Washington

Name of wetland (or ID #): Starvation - Wetland A Date of site visit: 3-2-22

Rated by Ed Sewall Trained by Ecology? Yes No Date of training _____

HGM Class Used for Rating Deposited Unit has multiple HGM classes? Y N

NOTE: Form is not complete without the figures requested (figures can be combined).
Source of base aerial photo/map _____

OVERALL WETLAND CATEGORY III

1. Category of wetland based on FUNCTIONS

- _____ Category I - Total score = 22 - 27
- _____ Category II - Total score = 19 - 21
- Category III - Total score = 16 - 18
- _____ Category IV - Total score = 9 - 15

Score for each function based on three ratings (order of ratings is not important)

- 9 = H,H,H
- 8 = H,H,M
- 7 = H,H,L
- 7 = H,M,M
- 6 = H,M,L
- 6 = M,M,M
- 5 = H,L,L
- 5 = M,M,L
- 4 = M,L,L
- 3 = L,L,L

| FUNCTION | Improving Water Quality | | | Hydrologic | | | Habitat | | |
|------------------------|-------------------------|----------|----------|-------------|----------|----------|----------|----------|----------|
| | Circle the | | | appropriate | | | ratings | | |
| Site Potential | H | M | <u>L</u> | H | M | <u>L</u> | H | M | <u>L</u> |
| Landscape Potential | H | <u>M</u> | L | <u>H</u> | M | L | H | <u>M</u> | L |
| Value | <u>H</u> | M | L | H | <u>M</u> | L | H | <u>M</u> | L |
| Score Based on Ratings | <u>4</u> | | | <u>6</u> | | | <u>5</u> | | |

17

2. Category based on SPECIAL CHARACTERISTICS of wetland

| CHARACTERISTIC | CATEGORY | |
|--|---------------------------------|-----------|
| | Circle the appropriate category | |
| Vernal Pools | <u>II</u> | III |
| Alakali | | <u>I</u> |
| Wetland with high conservation value | | <u>I</u> |
| Bog | | <u>I</u> |
| Old Growth or Mature Forest – slow growing | | <u>I</u> |
| Aspen Forest | | <u>I</u> |
| Old Growth or Mature Forest – fast growing | | <u>II</u> |
| Floodplain forest | | <u>II</u> |
| None of the above | | |

Wetland name or number A

Maps and figures required to answer questions correctly (Eastern Washington)

Depressional Wetlands

| Map of: | To answer questions: | Figure # |
|---|----------------------|----------|
| Cowardin plant classes and classes of emergents | D 1.3, H 1.1, H 1.4 | |
| Hydroperiods | D 1.4, H 1.2, H1.3 | |
| Location of outlet <i>(can be added to map of hydroperiods)</i> | D 1.1, D1.4 | |
| Boundary of 150 ft buffer <i>(can be added to another figure)</i> | D 2.2, D 5.2 | |
| Polygon of area 1km from wetland edge - Including polygons for accessible habitat and undisturbed habitat | H 2.1, H2.2 | |
| Screen capture of map of 303d listed waters in basin (from Ecology web site) | D 3.1, D 3.2 | |
| Screen capture of list of TMDL's for WRIA in which unit is found (from web) | D 3.3 | |
| Area of open water <i>(can be added to map of hydroperiods)</i> | H1.3.1 | |

Riverine Wetlands

| Map of: | To answer questions: | Figure # |
|--|----------------------|----------|
| Cowardin plant classes and classes of emergents | H 1.1, H 1.4 | |
| Hydroperiods | H 1.2, H1.3 | |
| Ponded depressions | R 1.1 | |
| Boundary of 150 ft buffer <i>(can be added to another figure)</i> | R 2.4 | |
| Plant cover of trees, shrubs, and herbaceous plants | R 1.2, R 4.2 | |
| Width of unit vs. width of stream <i>(can be added to another figure)</i> | R 4.1 | |
| Polygon of area 1km from wetland edge -Including polygons for accessible habitat and undisturbed habitat | H 2.1, H2.2 | |
| Screen capture of map of 303d listed waters in basin (from Ecology web site) | R 3.1 | |
| Screen capture of list of TMDL's for WRIA in which unit is found (from web) | R 3.2, R 3.3 | |

Lake-fringe Wetlands

| Map of: | To answer questions: | Figure # |
|---|----------------------------|----------|
| Cowardin plant classes and classes of emergents | L 1.1, L 4.1, H 1.1, H 1.4 | |
| Plant cover of trees, shrubs, and herbaceous plants | L 1.2 | |
| Boundary of 150 ft buffer <i>(can be added to another figure)</i> | L 2.2 | |
| Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat) | H 2.1, H2.2 | |
| Screen capture of map of 303d listed waters in basin (from Ecology web site) | L 3.1 | |
| Screen capture of list of TMDL's for WRIA in which unit is found (from web) | L 3.3 | |

Slope Wetlands

| Map of: | To answer questions: | Figure # |
|---|----------------------|----------|
| Cowardin plant classes and classes of emergents | H 1.1, H 1.4 | |
| Hydroperiods | H 1.2 | |
| Plant cover of dense trees, shrubs, and herbaceous plants | S 1.3 | |
| Plant cover of dense, rigid trees, shrubs, and herbaceous plants <i>(can be added to figure above)</i> | S 4.1 | |
| Boundary of 150 ft buffer <i>(can be added to another figure)</i> | S 2.1, S 5.1 | |
| Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat) | H 2.1, H2.2 | |
| Screen capture of map of 303d listed waters in basin (from Ecology web site) | S 3.1, S 3.2 | |
| Screen capture of list of TMDL's for WRIA in which unit is found (from web) | S 3.3 | |

HGM Classification of Wetland Units in Eastern Washington

For questions 1-4 the criteria described must apply to the entire unit being rated for it to be classified correctly.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-4 apply, and go to Question 5.

1. Does the entire wetland unit **meet both** of the following criteria?

The vegetated part of the wetland is on the water side of the Ordinary High Water Mark of a body of permanent open water (without any plants on the surface) that is at least 20 acres (8 ha) in size

At least 30% of the open water area is deeper than 10 ft (3 m)

NO - go to 2 YES - The wetland class is **Lake-fringe (Lacustrine Fringe)**

2. Does the entire wetland unit **meet all** of the following criteria?

The wetland is on a slope (*slope can be very gradual*),

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.

Does the water leave the wetland **without being impounded**?

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than 1 foot deep).

NO - go to 3 YES - The wetland class is **Slope**

3. Does the entire wetland unit **meet all** of the following criteria?

The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river

The overbank flooding occurs at least once every ten years.

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.

NO - go to 4 YES - The wetland class is **Riverine**

4. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year. *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 5 YES - The wetland class is **Depressional**

5. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM

Wetland name or number A

classes present within your wetland. NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

| HGM Classes within the wetland unit being rated | HGM Class to Use in Rating |
|---|----------------------------|
| Slope + Riverine | Riverine |
| → Slope + Depressional | Depressional |
| Slope + Lake-fringe | Lake-fringe |
| Depressional + Riverine (the riverine portion is within the boundary of depression) | Depressional |
| Depressional + Lake-fringe | Depressional |
| Riverine + Lake-fringe | Riverine |

*If you are unable still to determine which of the above criteria apply to your wetland, or if you have more than 2 HGM classes within a wetland boundary, classify the wetland as **Depressional** for the rating.*

Wetland name or number A

| DEPRESSIONAL WETLANDS | | Points (only 1 score per box) |
|---|-----------------------------------|----------------------------------|
| Water Quality Functions - Indicators that the site functions to improve water quality. | | |
| D 1.0 Does the wetland unit have the potential to improve water quality? | | |
| D 1.1 Characteristics of surface water flows out of the wetland unit: | | |
| Wetland has no surface water outlet - | points = 5 | 3 |
| Wetland has an intermittently flowing outlet | points = 3 | |
| Wetland has a highly constricted permanently flowing outlet | points = 3 | |
| Wetland has a permanently flowing surface outlet | points = 1 | |
| D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definitions of soils) | | |
| YES points = 3 | NO points = 0 | 0 |
| D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class) | | |
| Wetland has persistent, ungrazed, vegetation for > 2/3 of area | points = 5 | 0 |
| Wetland has persistent, ungrazed, vegetation from 1/3 to 2/3 of area | points = 3 | |
| Wetland has persistent, ungrazed vegetation from 1/10 to < 1/3 of area | points = 1 | |
| Wetland has persistent, ungrazed vegetation <1/10 of area | points = 0 | |
| D 1.4 Characteristics of seasonal ponding or inundation.) <i>This is the area of ponding that fluctuates every year. Do not count the area that is permanently ponded.</i> | | |
| Area seasonally ponded is > 1/2 total area of wetland | points = 3 | 1 |
| Area seasonally ponded is 1/4 - 1/2 total area of wetland | points = 1 | |
| Area seasonally ponded is < 1/4 total area of wetland | points = 0 | |
| Total for D 1 | Add the points in the boxes above | 4 |

Rating of Site Potential If score is: 12-16 = H 6-11 = M 0-5 = L
Record the rating on the first page

| | | |
|--|-----------------------------------|---|
| D 2.0 Does the landscape have the potential to support the water quality function at the site? | | |
| D2.1 Does the Wetland unit receive stormwater discharges? | Yes = 1 No = 0 | 1 |
| D 2.2 Is > 10% of the buffer within 150 ft of wetland unit in land uses that generate pollutants | Yes = 1 No = 0 | 1 |
| D2.3 Are there are septic systems within 250 ft of the wetland unit? | Yes = 1 No = 0 | 0 |
| D2.4 Are there are other sources of pollutants coming into the wetland that are not listed in questions D2.1 - D2.3? Source _____ | Yes = 1 No = 0 | 0 |
| Total for D 2 | Add the points in the boxes above | 2 |

Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L
Record the rating on the first page

| | | |
|--|-----------------------------------|---|
| D 3.0 Is the water quality improvement provided by the site valuable to society? | | |
| D3.1 Does the unit discharge directly (within 1 mile) to a stream, river, or lake that is on the 303d list? | Yes = 1 No = 0 | 1 |
| D 3.2 Is the unit in a basin or sub-basin where water quality is an issue in some aquatic resource (303d list, eutrophic lakes, problems with nuisance and toxic algae)? | Yes = 1 No = 0 | 1 |
| D 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer YES if there is a TMDL for the drainage or basin in which unit is found) | Yes = 2 No = 0 | 2 |
| Total for D 3 | Add the points in the boxes above | 4 |

Rating of Value If score is: 2-4 = H 1 = M 0 = L
Record the rating on the first page

Wetland name or number A

| DEPRESSIONAL WETLANDS | | Points (only 1 score per box) |
|--|-----------------------------------|----------------------------------|
| Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion. | | |
| D 4.0 Does the wetland unit have the <u>potential</u> to reduce flooding and erosion? | | |
| D 4.1 Characteristics of surface water flows out of the wetland unit: | | |
| Wetland has no surface water outlet | points = 8 | 4 |
| Wetland has an intermittently flowing outlet | points = 4 | |
| Wetland has a highly constricted permanently flowing outlet | points = 4 | |
| Wetland has a permanently flowing surface outlet | points = 0 | |
| <i>(If outlet is a ditch and not permanently flowing treat unit as "intermittently flowing")</i> | | |
| D 4.2 Depth of storage during wet periods <i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i> | | |
| Seasonal ponding: => 3 ft above the lowest point in unit or the surface of permanent ponding | points = 8 | 0 |
| Seasonal ponding: 2 ft - < 3 ft above the lowest point in unit or the surface of permanent ponding | points = 6 | |
| The wetland is a "headwater" wetland" | points = 4 | |
| Seasonal ponding: 1 ft - < 2 ft | points = 4 | |
| Seasonal ponding: 6 in - < 1 ft | points = 2 | |
| Seasonal ponding: <6 in or unit has only saturated soils | points = 0 | |
| Total for D 4 | Add the points in the boxes above | 4 |

Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L

Record the rating on the first page

| | | |
|---|-----------------------------------|---|
| D 5.0 Does the landscape have the potential to support hydrologic functions at the site? | | |
| D5.1 Does the unit receive any stormwater discharges? | Yes = 1 No = 0 | 1 |
| D5.2 Is >10% of the land use within 150 ft of the wetland in a land uses that generates runoff? | Yes = 1 No = 0 | 1 |
| D 5.3 Is more than 25% of the contributing basin of the wetland unit covered with intensive human land uses? <i>Agricultural</i> | Yes = 1 No = 0 | 1 |
| Total for D 5 | Add the points in the boxes above | 3 |




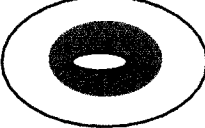
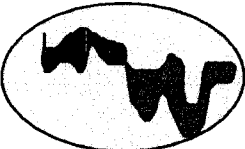
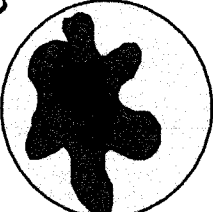
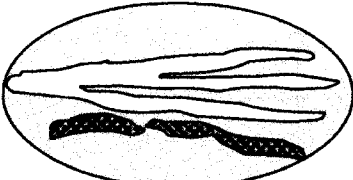
Rating of Landscape Potential If score is: 3 = H 1,2 = M 0 = L

Record the rating on the first page

| | | |
|---|-----------------------------------|---|
| D 6.0 Are the hydrologic functions provided by the site valuable to society? | | |
| D 6.1 Is the unit is in a landscape that has flooding problems? Choose the description that best matches conditions around the wetland unit being rated. <i>Do not add points. Choose the highest score if more than one condition is met.</i> | | |
| <input type="checkbox"/> The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g. salmon redds), AND | | |
| <input type="radio"/> Damage occurs in sub-basin that is immediately downgradient of unit | points = 2 | 1 |
| <input type="radio"/> Damage occurs in a sub-basin further down-gradient | points = 1 | |
| <input type="checkbox"/> The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. | | |
| <i>Explain why</i> _____ | points = 0 | |
| <input type="checkbox"/> There are no problems with flooding downstream of the unit. | points = 0 | |
| D 6.2 Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan? | | |
| | Yes = 2 No = 0 | 0 |
| Total for D 6 | Add the points in the boxes above | 1 |

Rating of Value If score is: 2 - 4 = H 1 = M 0 = L

Record the rating on the first page

| <p style="text-align: center;">These questions apply to wetlands of all HGM classes.</p> <p>HABITAT FUNCTIONS - Indicators that site functions to provide important habitat</p> | | (only 1 score per box) |
|--|--|------------------------|
| <p>H 1. Does the wetland unit have the <u>potential</u> to provide habitat for many species?</p> | | |
| <p>H 1.1 Categories of vegetation structure Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is $\geq \frac{1}{4}$ acre or $\geq 10\%$ of the unit if unit is < 2.5 acres</p> <p> <input type="checkbox"/> Emergent plants 0-12 in. (0 – 30 cm) high are the highest layer and have > 30% cover <input checked="" type="checkbox"/> Emergent plants >12 – 40 in. (>30 – 100cm) high are the highest layer with >30% cover <input type="checkbox"/> Emergent plants > 40 in. (> 100cm) high are the highest layer with >30% cover <input type="checkbox"/> Scrub/shrub (areas where shrubs have >30% cover) 4-6 checks points = 3 <input type="checkbox"/> Forested (areas where trees have >30% cover) 3 checks points = 2 2 checks points = 1 1 check <u>points = 0</u> </p> | | 0 |
| <p>H 1.2. Is one of the vegetation types “aquatic bed?” YES = 1 point <u>NO = 0 points</u></p> | | 0 |
| <p>H 1.3. Surface Water H 1.3.1 Does the unit have areas of “open” water (without herbaceous or shrub plants) over at least $\frac{1}{4}$ acre OR 10% of its area during the March to early June OR in August to the end of September? <i>Note: answer YES for Lake-fringe wetlands</i> YES = 3 points & go to H 1.4 <u>NO = go to H 1.3.2</u> H 1.3.2 Does the unit have an intermittent or permanent, and unvegetated stream within its boundaries, or along one side, over at least $\frac{1}{4}$ acre or 10% of its area, (<i>answer yes only if H 1.3.1 is NO</i>)? YES = 3 points <u>NO = 0 points</u></p> | | 0 |
| <p>H 1.4. Richness of Plant Species Count the number of plant species in the wetland that cover at least 10 ft². (<i>different patches of the same species can be combined to meet the size threshold</i>) You do not have to name the species. Do not include Eurasean Milfoil, reed canarygrass, purple loosestrife, Russian Olive, Phragmites, Canadian Thistle, Yellow-flag Iris, and Salt Cedar (Tamarisk) # of species ____ Scoring: > 9 species = 2 points <u>4-9 species = 1 point</u> 4 species = 0 points</p> | | 1 |
| <p>H 1.5. Interspersion of habitats Decide from the diagrams below whether interspersion between types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, medium, low, or none. Use map of Cowardin plant classes prepared for questions H1.1 and map of open water from H1.3</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>None = 0 points</p> </div> <div style="text-align: center;">  <p><u>Low = 1 point</u></p> </div> <div style="text-align: center;">  <p>Moderate = 2 points</p> </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>High = 3 points</p> </div> <div style="text-align: center;">  <p>High = 3 points</p> </div> <div style="text-align: center;">  <p>riparian braided channels with 2 classes = High</p> </div> </div> <p>NOTE: If you have four or more classes or three plants classes and open water the rating is always “high”.</p> | | Figure__ |

Wetland name or number A

| | | |
|--|--|---|
| H 1.6. Special Habitat Features: <i>Check the habitat features that are present in the wetland unit. The number of checks is the score.</i> <input type="checkbox"/> Loose rocks larger than 4" <u>or</u> large, downed, woody debris (>4in. diameter) within the area of surface ponding or in stream. <input checked="" type="checkbox"/> Cattails or bulrushes are present within the unit. <input type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland unit or within 30 m (100ft) of the edge. <input type="checkbox"/> Emergent or shrub vegetation in areas that are permanently inundated/ponded. <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (>45 degree slope) OR signs of recent beaver activity <input type="checkbox"/> Invasive species cover less than 20% in each stratum of vegetation (<i>canopy, sub-canopy, shrubs, herbaceous, moss/ground cover</i>) <p style="text-align: right;">Maximum score possible = 6</p> | | 1 |
| H 1. TOTAL Score - Add the check marks in the box above | | 3 |

Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L
 Record the rating on the first page

| | | |
|---|--|---|
| H 2.0 . Does the landscape have the potential to support habitat at the site? | | |
| H 2.1 Accessible habitat (only area of habitat abutting wetland unit). Calculate: % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0</u> = <u>0</u> % If total accessible habitat is: > 1/3 (33.3%) of 1km circle (~100 hectares) points = 3 20 - 33% of 1km circle points = 2 10- 19% of 1km circle points = 1 <10% of 1km circle <u>points = 0</u> | | 0 |
| H2.2 Undisturbed habitat in 1km circle around unit. If: Undisturbed habitat > 50% of circle points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and > 3 patches <u>points = 1</u> Undisturbed habitat < 10% of circle points = 0 | | 1 |
| H2.3 Land use intensity in 1 km circle. If: > 50% of circle is high intensity land use points = (- 2) Does not meet criterion above points = 0 | | 0 |
| The wetland unit is in an area where annual rainfall is less than 12 inches, and its water regime is not influenced by irrigation practices, dams, or water control structures. (<i>Generally, this means outside boundaries of reclamation areas, irrigation district, or reservoirs</i>) points = 3 | | 0 |
| Total for H 2 Add the points in the boxes above | | 1 |

Rating of Landscape Potential If score is: 4 - 6 = H 1-3 = M < 1 = L
 Record the rating on the first page

| | | |
|--|--|--|
| H 3.0 Is the Habitat provided by the site valuable to society? | | |
| H3.1 Does the site provides habitat for species valued in laws, regulations or policies? (choose the highest score) Site meets ANY of the following criteria: points = 2 <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on state or federal lists) <input type="checkbox"/> It is a "priority area" for an individual WDFW species <input type="checkbox"/> It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources <input type="checkbox"/> It has 3 or more priority habitats within 100m (see Appendix B) <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats within 100m (see Appendix B) <u>points = 1</u> Site does not meet any of the criteria above points = 0 | | |

Rating of Value If score is: 2 = H 1 = M 0 = L
 Record the rating on the first page

Wetland name or number A

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland unit meets the attributes described below and circle the appropriate Category. NOTE: A wetland may meet the criteria for more than one set of special characteristics. Record all those that apply. NOTE: All units should also be characterized based on their functions.

| Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met. | Category |
|--|-----------------------------------|
| SC 1.0 Vernal pools Is the wetland unit less than 4000 ft² , and does it meet at least two of the following criteria? <ul style="list-style-type: none"> — Its only source of water is rainfall or snowmelt from a small contributing basin and has no groundwater input — Wetland plants are typically present only in the spring; the summer vegetation is typically upland annuals. <i>NOTE: If you find perennial, "obligate", wetland plants the wetland is probably NOT a vernal pool</i> — The soil in the wetland are shallow (<1ft deep (30 cm)) and is underlain by an impermeable layer such as basalt or clay. — Surface water is present for <u>less than 120 days</u> during the "wet" season. YES = Go to SC 1.1 NO - not a vernal pool SC 1.1 Is the vernal pool relatively undisturbed in February and March? YES = Go to SC 1.2 NO – <i>not a vernal pool with special characteristics</i> | |
| SC 1.2 Is the vernal pool in an area where there are at least 3 separate aquatic resources within 0.5 miles (other wetlands, rivers, lakes etc.)? YES = Category II NO = Category III | Cat. II Cat. III |
| SC 2.0 Alkali wetlands Does the wetland unit meets one of the following two criteria? <ul style="list-style-type: none"> — The wetland has a conductivity > 3.0 mS/cm. — The wetland has a conductivity between 2.0 - 3.0 mS, and more than 50% of the plant cover in the wetland can be classified as "alkali" species (see Table 4 for list of plants found in alkali systems). — If the wetland is dry at the time of your field visit, the central part of the area is covered with a layer of salt. OR does the wetland unit meets two of the following three sub-criteria? <ul style="list-style-type: none"> — Salt encrustations around more than 80% of the edge of the wetland — More than ¾ of the plant cover consists of species listed on Table 4 — A pH above 9.0. All alkali wetlands have a high pH, but please note that some freshwater wetlands may also have a high pH. Thus, pH alone is not a good indicator of alkali wetlands. YES = Category I NO – not an alkali wetland | Cat. I |

Wetland name or number A

| | |
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| <p>SC 3.0 Wetlands with High Conservation Value (WHCV)</p> <p>SC 2.1 Has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value? YES - Go to SC 2.2 NO - Go to SC 2.3</p> <p>SC 2.2 Is the wetland unit you are rating listed on the DNR database as having a High Conservation Value? YES = Category I NO = not a WHCV</p> <p>SC 2.3 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasetsearch/wnhpwetlands.pdf YES ___ - contact WNHP/DNR and go to SC 2.4 NO = not a WHCV</p> <p>SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on their web site? YES = Category I NO ___ not an WHCV</p> | <p style="text-align: center;">Cat. I</p> |
| <p>SC 4.0 Bogs and Calcareous Fens</p> <p>Does the wetland unit (or any part of the wetland unit) meet both the criteria for soils and vegetation in bogs or calcareous fens. <i>Use the key below to identify if the wetland is a bog or calcareous fen. If you answer yes you will still need to rate the wetland based on its functions.</i></p> <p>SC 4.1. Does an area within the wetland unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? (See Appendix C for a field key to identify organic soils)? Yes - go to SC 4.3 No - go to SC 4.2</p> <p>SC 4.2. Does an area within the unit have organic soils, either peats or mucks that are less than 16 inches deep over bedrock or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?? Yes - go to SC 4.3 No - Is not a bog for rating</p> <p>SC 4.3. Does an area within the unit have more than 70% cover of mosses at ground level AND at least 30% of the total plant cover consists of species in Table 5? Yes - Category I bog No - go to SC 4.4</p> <p><i>NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the plant species in Table 5 are present, the wetland is a bog.</i></p> <p>SC 4.4 Is an area with peats or mucks forested (> 30% cover) with subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, AND any of the species (or combination of species) listed in Table 5 provide more than 30% of the cover under the canopy Yes - Category I bog NO - go to question SC 4.5</p> <p>5. Do the species listed in Table 6 comprise at least 20% of the total plant cover within an area of peats and mucks? Yes - Is a Calcareous Fen for purpose of rating No - go to Question 6</p> <p>6. Do the species listed in Table 6 comprise at least 10% of the total plant cover an area of peats and mucks, AND one of the two following conditions is met:</p> <ul style="list-style-type: none">• Marl deposits (calcium carbonate (CaCO₃) precipitate) occur on the soil surface or plant stems• The pH of free water ≥ 6.8 AND electrical conductivity ≥ 200 uS/cm at multiple locations within the wetland <p>Yes - Is a Category I calcareous fen No - Is not a calcareous fen</p> | <p style="text-align: center;">Cat. I</p> <p style="text-align: center;">Cat. I</p> |

Wetland name or number A

| | |
|---|-----------------------|
| <p>SC 5.0 Forested Wetlands Does the wetland unit have an area of forest rooted within its boundary that meets at least one of the following three criteria? (<i>Continue only if you have identified a forested class is present in question H 1.1</i>)</p> <ul style="list-style-type: none"> • The wetland is within the "100 year" floodplain of a river or stream • aspen (<i>Populus tremuloides</i>) represents at least 20% of the total cover of woody species <p>— There is at least ¼ acre of trees (even in wetlands smaller than 2.5 acres) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW (<i>see definitions in question H3.1</i>)</p> <p>YES = go to SC 5.1 NO – not a forested wetland with special characteristics</p> | |
| <p>SC 5.1 Does the wetland unit have a forest canopy where more than 50% of the tree species (by cover) are slow growing native trees (<i>see Table 7</i>) YES = Category I NO = go to SC 5.2</p> | <p>Cat. I</p> |
| <p>SC 5.2 Does the unit have areas where aspen (<i>Populus tremuloides</i>) represents at least 20% of the total cover of woody species. YES = Category I NO = go to SC 5.3</p> | <p>Cat. I</p> |
| <p>SC 5.3 Does the wetland unit have areas with a forest canopy where more than 50% of the tree species (by cover) are fast growing species. (<i>see Table 7</i>) YES = Category II NO = go to SC 5.5</p> | <p>Cat. II</p> |
| <p>SC 5.4 Is the forested component of the wetland within the "100 year floodplain" of a river or stream? YES = Category II</p> | <p>Cat. II</p> |
| <p>Category of wetland based on Special Characteristics <i>Choose the "highest" rating if wetland falls into several categories. If you answered NO for all types enter "Not Applicable" on p.1</i></p> | <p>NA</p> |

Wetland name or number A

Appendix B: WDFW Priority Habitats in Eastern Washington

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>)

Count how many of the following priority habitats are within 330 ft (100m) of the wetland unit? *NOTE: This question is independent of the land use between the wetland unit and the priority habitat.*

Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre).

Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report p. 152).

Old-growth/Mature forests: Old-growth east of Cascade crest: Stands are highly variable in tree species composition and structural characteristics due to the influence of fire, climate, and soils. In general, stands will be >150 years of age, with 25 trees/ha (10 trees/acre) that are > 53 cm (21 in) dbh, and 2.5-7.5 snags/ha (1 - 3 snags/acre) that are > 30-35 cm (12-14 in) diameter. Downed logs may vary from abundant to absent. Canopies may be single or multi-layered. Evidence of human-caused alterations to the stand will be absent or so slight as to not affect the ecosystem's essential structures and functions. Mature forests: Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west and 80 - 160 years old east of the Cascade crest.

Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above).

Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.

Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.

Shrub-steppe: A nonforested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs (see Eastside Steppe for sites with little or no shrub cover).

Eastside Steppe: Nonforested vegetation type dominated by broadleaf herbaceous flora (i.e., forbs), perennial bunchgrasses, or a combination of both. Bluebunch Wheatgrass (*Pseudoroegneria spicata*) is often the prevailing cover component along with Idaho Fescue (*Festuca idahoensis*), Sandberg Bluegrass (*Poa secunda*), Rough Fescue (*F. campestris*), or needlegrass (*Achnatherum* spp.).

Juniper Savannah: All juniper woodlands.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.



Water Quality Atlas Map

Legend Filter Zoom Tools

Home Add/Remove Map Data

My Maps Print Share About

- Basic
- Drawing
- Other

Keyboard Identify Measure Distance Measure Area Image Service

Usage: Click on map to add measure points. Double-click to finish.

Unit: Feet

Distance: 1,569.79 ft

New measurement

Find address or place

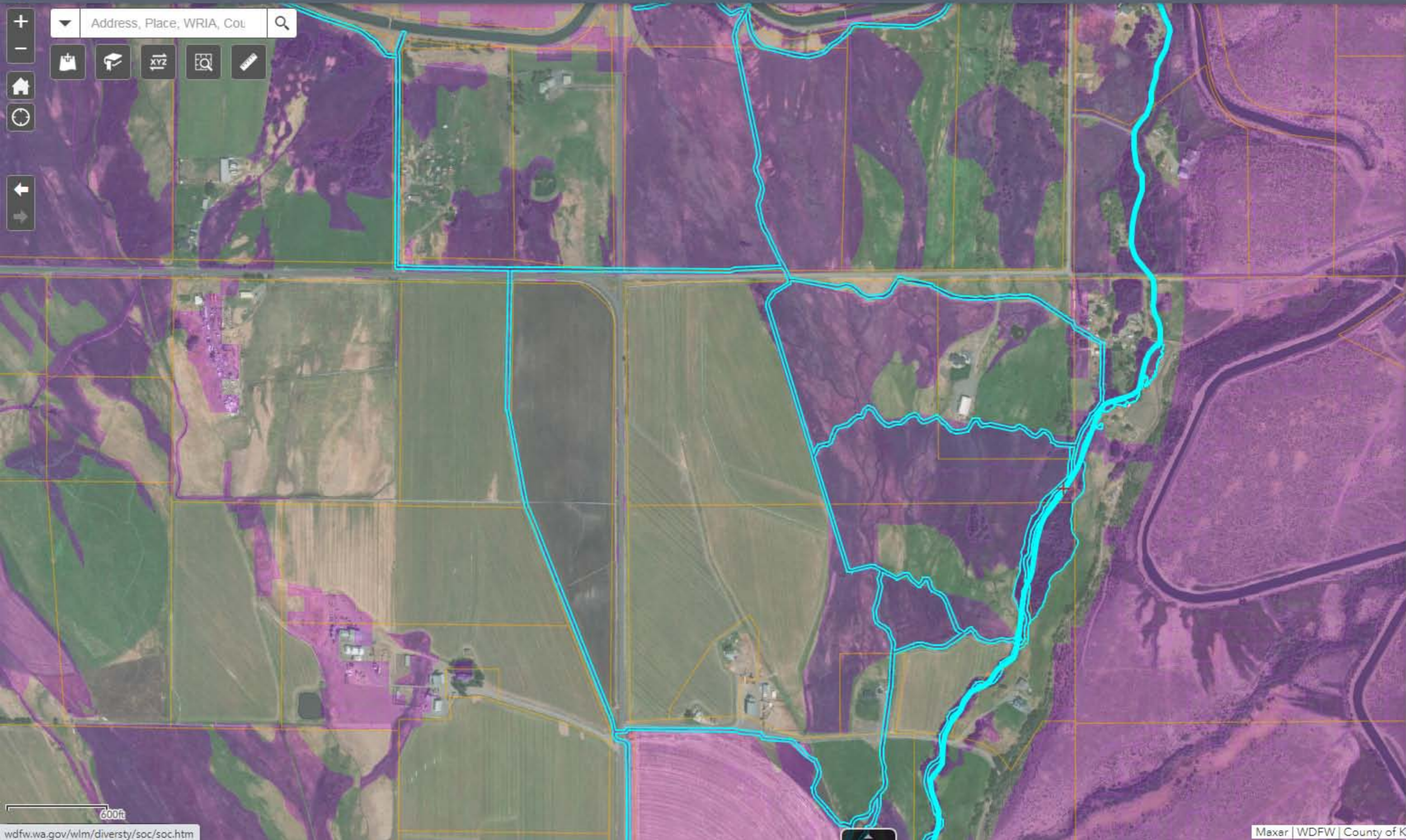
Bing Imagery



Assessed Water/Sediment Filter Applied Clear filters Zoom to selection Table to CSV

| Find | Listing ID | Assessment Unit ID | Category | Medium | Parameter | Details |
|------|------------|--------------------|----------|--------|------------------|----------------------|
| | 66746 | 170200011202_01_01 | 5 | Water | Dissolved Oxygen | View |
| | 11253 | 170200050203_01_01 | 5 | Water | Temperature | View |
| | 42784 | 170200050203_01_01 | 5 | Water | Dissolved Oxygen | View |

Show 5 entries Showing 1 to 5 of 4,548 entries First Previous Next Last



PHS Identify

Distance: Units:

| Occurrence Name | Rainbow Trout |
|--------------------|--|
| Scientific Name | <i>Oncorhynchus mykiss</i> |
| Priority Area | Occurrence/Migration |
| Site Name | Currier Creek |
| Accuracy | NA |
| Notes | LLID: 1205819470067, Fish Name: Rainbow Trout, Run Time: Unknown or not Applicable, Life History: Resident |
| Source Record | 4386 |
| Source Dataset | SWIFD |
| Federal Status | N/A |
| State Status | N/A |
| PHS Listing Status | PHS Listed Occurrence |
| Sensitive | N |
| SGCN | N |
| Display Resolution | AS MAPPED |
| More Info | Click for more info. |
| Geometry Type | Lines |

| Occurrence Name | Freshwater Forested/Shrub Wetland |
|-----------------|---|
| Priority Area | Aquatic Habitat |
| Site Name | N/A |
| Accuracy | NA |
| Notes | Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PSS1C |
| Source Dataset | NWIWetlands |
| Source Name | Not Given |
| Source Entity | US Fish and Wildlife Service |
| Federal Status | N/A |
| State Status | N/A |

Tools

- Public Notification (Buffer)

Select or search for a feature in the map

Parcel#, Map#, Name, Situs

Apply a search distance

500 Feet

Addressee Layer

Mailing Address

Format

Comma-separated values (CSV)

Measurement

Feet

Measurement Result

153.8 Feet

Clear

Press CTRL to enable snapping



Tools

- Public Notification (Buffer)

Select or search for a feature in the map

Parcel#, Map#, Name, Situs

Apply a search distance

500 Feet

Addressee Layer

Mailing Address

Format

Comma-separated values (CSV)

Measurement

Kilometers

Measurement Result

1.01 Kilometers

Clear

Press CTRL to enable snapping

